

APPROVED FOR RELEASE: 2007/02/08: CIA-RDP82-00850R000100090001-0

4

1 OF 1

FOR OFFICIAL USE ONLY

JPRS L/8642

4 September 1979

Japan Report

(FOUO 25/79)



FOREIGN BROADCAST INFORMATION SERVICE

FOR OFFICIAL USE ONLY

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

For further information on report content call (703) 351-3067 (Japan, Korea, Mongolia); 351-2760 (Vietnam, South and East Asia).

COPYRIGHT LAWS AND REGULATIONS GOVERNING OWNERSHIP OF MATERIALS REPRODUCED HEREIN REQUIRE THAT DISSEMINATION OF THIS PUBLICATION BE RESTRICTED FOR OFFICIAL USE ONLY.

FOR OFFICIAL USE ONLY

JPRS L/8642

4 September 1979

JAPAN REPORT

(FOUO 25/79)

| CONTENTS | PAGE |
|--|------|
| POLITICAL AND SOCIOLOGICAL | |
| JCP Announces Slogans for General Election (JPS, 20 Aug 79) | 1 |
| Ohira Will Not Replace Secretary General Saito (Takehiko Takahashi; MAINICHI DAILY NEWS, 2 Aug 79) | 4 |
| Tanaka Makes Early Start for Diet Dissolution in September (Taro Akasaka; BUNGEI SHUNJU, Aug 79) | 7 |
| LDP Puts Lid on Lockheed Scandal, Ohira's Stock Rises (Yuji Katsumata; SHUKAN ASAHI, 15 Jun 79) | 12 |
| JCP's Fuwa Links Coming Miyamoto-Brezhnev Meeting, Northern Isles (MAINICHI SHIMBUN, 12 May 79) | 19 |
| MILITARY | |
| Japanese Export of Military Equipment to Israel Alleged (SHUKAN POSUTO, 29 Jun 79) | 20 |
| ECONOMIC | |
| Experts Reflect on Overseas Criticism Against Japan (Naoaki Okabe; NIHON KEIZAI SHIMBUN, 10 Jul 79) | 27 |
| SCIENCE AND TECHNOLOGY | |
| MITI To Set Up 'Future Energy Research and Development Subsidies' (NIKKAN KOGYO SHIMBUN, 5 Jun 79) | 31 |

- a -

[III - ASIA - 111 FOUO]

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

| CONTENTS (Continued) | Page |
|---|------|
| Education Ministry To Start Two Long-Term Energy Programs (ASAHI EVENING NEWS, 6 Aug 79) | 33 |
| Coal-Burning Ships Planned by Hitachi (MAINICHI DAILY NEWS, 3 Aug 79) | 34 |
| 'Automatic Measuring System' for Parts Developed (NIKKAN KOGYO SHI BUN, 31 May 79) | 35 |
| Hitachi Moving Toward Fully Automated LSI Production (NIKKAN KOGYO SHI BUN, 31 May 79) | 38 |
| Important Technology Subsidy Themes, Recipients Announced (NIKKAN KOGYO SHIMBUN, 5 Jun 79) | 40 |
| 3.1 Billion Yen Allotted Recipients, Themes Listed | |
| Briefs | |
| Manganese Nodule Program | 46 |
| Coal Liquefaction Catalysts | 46 |
| Semisubmersible Work Ship | 46 |

- b -

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

POLITICAL AND SOCIOLOGICAL

JCP ANNOUNCES SLOGANS FOR GENERAL ELECTION

Tokyo JPS in English 0927 GMT 20 Aug 79 OW

[Text] Tokyo, Aug 20, JPS--Akahata carried the Japanese Communist Party's slogans for the general election on August 19. The following is the full introduction of the slogans.

Key Slogans

--Establish a new Japan in 1980's serving the interests of the people.

--Hand down harsh judgment of the people on the Ohira government of money-power, corruption and disruption of the people's living.

--Give people's judgment to the new ruling party line of anticommunist "Centrist" parties, helping the bad administration of the Liberal Democratic Party.

--Let U.S. reduce seats and votes of the LDP and its following forces.

--For a new rising tide of the progressive movement by advancing the JCP.

--Rallying the progressive United Front is the best way to save Japan. The JCP fights for it.

--Let us separate from money-power politics giving preference to big business, to take steps for reconstruction of the Japanese economy serving the interests of the people.

--The Tripartite Alliance of the U.S., Japan and China pivoting on the Japan-U.S. military alliance, leads the way to war and intervention. Abolish the Security Treaty, and establish a peaceful and neutral Japan.

--Condemn keeping the aircraft import graft under cover, and sweep away the administration of money power, war criminals and national betrayal.

FOR OFFICIAL USE ONLY

--For warm-hearted administration protecting the happiness of mother and child. Give worth-living future to the youth.

--Opposition to wartime emergency legislation and the small constituency system. Prevent reactionary administration and fascism.

--Vote for the JCP, the genuine party of progressive forces, the driving force of the United Front.

Policy Slogans

--Restrain the secretion of oil, and price increases by taking advantage of an increase of oil price, to prevent recurrence of the crazy price spiral.

--Break free from the energy crisis with the independent energy program.

--Oppose general consumer tax, and tax increases on the low and medium income group. Change the tax system giving preferential treatment to big business.

--Oppose the reduction in big enterprises' work force reducing "reduced operation." Increase employment by cutting work hours, and by public project investments standing on the basis of the people's living.

--Condemn cutting welfare. For social securities enough to live on without worries.

--Opposition to ruinous agricultural policy giving preference to big industries. Make agriculture Japan's mainstay industry.

--Check big business outrages, for the development of small and medium business operation.

--Oppose interference in three countries of Indochina. For peaceful Asia.

--Return Habomai and Shikotan islands immediately, and negotiate the question of the return of the Chirishima Islands (Kurile) on the stand of peaceful and neutral Japan.

--Ban the company donations--the hotbed of the corrupt government.

--Oppose the malrevision of the labor standards law. For the sexual equality and protection of the maternity in employment.

--Establish married women's rights and old age securities of women.

--Early realization of school classes of 40 pupils. Let us prevent delinquencies by all school efforts, and all community efforts.

FOR OFFICIAL USE ONLY

--Oppose praising the imperial instruction for soldiers and the imperial rescript on education. For education valuing peace, democracy and life.

--Complete application of the peaceful and democratic clause of the constitution. Defend freedom and democracy to the end.

--Oppose company operating election campaign. Defend freedom of thought and belief of workers and small business operators.

--Compulsory support for a special party is suicidal act of trade unions. Defend freedom of workers' support of political party and political activity.

CS0: 4120

FOR OFFICIAL USE ONLY

POLITICAL AND SOCIOLOGICAL

OHIRA WILL NOT REPLACE SECRETARY GENERAL SAITO

Tokyo MAINICHI DAILY NEWS in English 2 Aug 79 p 4

[Column by Takehiko Takahashi "Nagatacho Doings": "Meaning of Attack-Defense Involving Post of Secretary General"]

[Text] The rumor circulating in the Nagatacho district is that "there will be a dissolution of the House of Representatives on Sept. 17, to be followed by a general election on Oct. 17."

Isamu Murakami, one of the senior members of the Liberal-Democratic Party, remarked at a private meeting that "a party to commemorate the publication of a book was scheduled for Sept. 18 but I've postponed it to next year since there will be a general election."

LDP Vice President Eiichi Nishimura was present at this meeting but he made no comment on Murakami's statement.

The speech and behavior of Prime Minister Masayoshi Ohira at a meeting of the LDP Party Reform Promotion Headquarters on July 25 were aggressive, as if "putting the antimainstream element to rout." One housewife, who saw this scene on television, remarked, "the premiership gives a man great authority. I received an entirely different impression of Mr Ohira from the person who was so humble and spoke mumblingly until only recently."

At a joint meeting of the Party Reform Headquarters, Shintaro Abe of the Fukuda faction said, "I hear that an agreement has been reached between Prime Minister Ohira and former Prime Minister Takeo Fukuda to retain Kunikichi Saito, recommended by Ohira, as the party's secretary general for the time being."

Abe further urged that the selection of the secretary general from the prime minister's own faction should be stopped.

FOR OFFICIAL USE ONLY

To this, Ohira made a firm rebuttal, declaring that "not to recognize the secretary general recommended by the prime minister is tantamount to not recognizing the prime minister," He made it very clear that he had no intention of replacing Saito with someone else.

This strong attitude of Ohira makes one recall the late former Prime Minister Shigeru Yoshida who was regarded as being "dictatorial." A strong anti-Yoshida feeling was rising in the Jiyuto Party at the time. Yoshida selected as the party's secretary general one of his close associates Kenji Fukunaga (former chief cabinet secretary, later labor minister and transport minister successively).

The choice was vigorously opposed by the "anti-Hoshida" Tadao Kuraishi (at present chairman of the executive council) and Horohide Ishida (former chief cabinet secretary, later minister of labor) who swept past desks and chairs to confront the prime minister directly.

This was a little too much for Yoshida. He retracted the choice of "Secretary General Fukunaga" and appointed Joji Hayashi, one of the party's elders at the time, to the post. Nevertheless, because of this retraction of an appointment once made under the pressure of intraparty opposition, Yoshida's power declined sharply.

Prime Minister Ohira must be well aware of that incident. He must be thinking that if he were to replace Secretary General Saito because of antimainstream opposition and appoint someone from outside the Ohira faction to the post, the stability of the Ohira administration will be affected. This is in the background of the extremely strong posture taken by Ohira on this occasion.

It may be that Prime Minister Ohira is also being stimulated by U.S. President Carter's personnel shifts. The American public's support of President Carter has fallen to the lowest level among successive American presidents. In looking forward to reelection in next year's presidential election, President Carter needs a strong cabinet lineup. It was from this thought that his closest aide, Hamilton Jordan, has been appointed to the powerful post of White House chief of staff.

Prime Minister Ohira is also aiming at reelection in the party presidential election to be held next year. For that, a strong lineup centering on the Ohira Mafia is essential. If the antimainstream demand is accepted and someone from outside the Ohira faction is chosen as the secretary general, the strength of the Ohira Mafia will dwindle. This is something that Prime Minister Ohira cannot accept, for the sake of reelection.

Meanwhile, the feeling that there will be a dissolution of the House of Representatives is becoming stronger. If a party convention is held

FOR OFFICIAL USE ONLY

before that and the secretary general is changed, the general election will not be a "plus" factor for Ohira in the party presidential election.

It is the secretary general who is in charge of operating the party's funds. It is the secretary general who decides which candidates the party will recommend and on whom the party will place the greatest priority. It is necessary for Prime Minister Ohira not only to increase the number of LDP Diet seats but also to increase the Diet members who will support Ohira's reelection.

For that purpose it is necessary to keep the post of secretary general within his own faction. On the other hand, the antimainstream factions are thinking in exactly the opposite way.

The statement made by Prime Minister Ohira on July 25 is bound to intensify the internal confrontation between the mainstream and antimainstream factions of the Liberal-Democratic Party.

(The writer is an adviser of THE MAINICHI NEWSPAPERS and former chief editorial writer.)

COPYRIGHT: Mainichi Daily News, 1979

CSO: 4120

FOR OFFICIAL USE ONLY

POLITICAL AND SOCIOLOGICAL

TANAKA MAKES EARLY START FOR DIET DISSOLUTION IN SEPTEMBER

Tokyo BUNGEI SHUNJU in Japanese Aug 79 pp 399-402

[Article by Editor Taro Akasaka: "With Regard to the Grumman-Douglas Scandal, Ohira's Byword was 'Step on Neither the Accelerator Nor Brake Pedal' But in the Matter of Dissolution He is Opportunistically Stepping on Both the Gas and Brake"]

[Excerpt] Mr Kaku [former Prime Minister Kakuei Tanaka] Firming Elections Posture

According to intimates of Ohira, "Papa [Ohira] isn't going to press for leadership; with timely use of the accelerator and the brake, he's going to await the creation of a situation resulting in a natural political groundswell." He's not going to force the issue which might require him to "unsheathe the family's bejeweled sword." At the press conference at the close of the Diet session held at the prime minister's official residential club, he sang the same tune: "There's no room for thinking about dissolution at this time." And he added: "Foreign relations problems currently facing us have to be whipped into shape; we must consider them in the light of the energy problem, make our 'summer review (reevaluation of the financial situation for the summer period)', and rough out budgetary estimates required by the end of August. In party matters, priority is going to be given to intraparty reorganization."

The political problems enumerated by Ohira, the preparation of a reply to the Recurrence Prevention Conference, and even a visit to China can all be accomplished by August leaving him a chance to observe the flow of popular thinking.

Within the Liberal Democratic Party [LDP], the Tanaka faction is cleverly supporting Ohira's dissolution strategy. Eiichi Nishimura, the deputy director who is called "Grand daddy", was the first to stir up a dissolution breeze this year. On 31 January at a Tanaka faction caucus he stated: "We have passed the point of no return (of term of service); action must be confined to the established ballpark." As if in endorsement, the boss, Tanaka, stated: "If it's undertaken this year, over 280 seats are assured." But subsequently he is alleged to have muttered words to the effect that, "On dissolution, I'll have the say," and, "Is Ohira seriously considering it?" Such utterances put

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

joy in the hearts of Fukuda and Abe.

Then again, it is being said that Tanaka is insisting that "285 is certain" to any who inquire. Tanaka's personal election image is being firmed with "September" as a target. Some see developments in the Lockheed case as the source of Tanaka's vacillation. Within the LDP more attention is being paid to Tanaka's words and actions than to those of Ohira and recently, his words and actions have become a sort of "blower" boosting the dissolution breezes.

In this faction, there is another team--the Kanemaru-Takeshita combine--which deserves watching since that was the team that compiled that mysterious memorandum. Simultaneous to the ending of the Diet's session, Kanemaru stated: "Convene an extraordinary session of the Diet in September for the purpose of dissolving it." And Takeshita: "A September dissolution can definitely be rated at 7 to 3; the LDP can be assured of 275, plus or minus 10." Around February, this same Takeshita, teaming with Abe, was saying: "The chances of dissolution are 50-50. Coinciding it with the upper house's election next year should be good timing--the opposition won't be able to put up a united front." In April he was saying: "Election after a full term at the end of next year. Postpone the official selection of [party] director for half a year. With that Ohira will be reelected." But in May he changed his tune to: "Chances for dissolution are 60-40." Takeshita who was chairman of the national committee to recruit 1.5 million members to the party, seems to be prone to swaying with prevailing winds.

But one man in the Tanaka faction rose up in vigorous opposition to dissolution. This man was Nishimura, paradoxically the man who instigated it in the first place. "You've got to be joking," he roared. "How could I possibly support dissolution within the year? I am opposed!" It is said that his opposition is based on his judgment that, "Dissolution will solidify the alliance of Fukuchusan [Fukuda-Nakasone-Miki] factions."

The three non-mainstream factions of Fukuda, Nakasone, and Miki are bedfellows in agreeing that: "Until the party reorganization is completed and an election posture formulated we are opposed to a dissolution because it would leave the party without a meaningful platform." Among the three factions, the most persistently outspoken and vengeful is the young captain of the Fukuda faction gifted with leadership qualities, Shintaro Abe. Gathering his cohorts together he would say: "Well, dissolution is blocked for now"; and, "Last year Ohira blocked Fukuda's attempt to dissolve; this time it's our turn!" According to Abe's explanatory briefing: "First, the party reorganization must be effected; we can't have a political vacuum in the event of a worsened economic situation resulting from the petroleum problem. We must be prepared to rebuild our economy. We must shape up the tobacco and the standard of living legislative measures so that they can be taken up when the Diet reconvenes. On top of that, there is no assurance that the LDP will win if an election is held. Those are the reasons why dissolution is irrational." "But," he added, "if Ohira forces one, we'll lay down a seige net." Ichiro Nakagawa is in agreement with Abe's insistence that party reorganization has priority. "We are prepared to

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

take some steps if dissolution is undertaken without a reorganized party and with the same chief executive in the chair."

From another quarter, the Nakasone faction's boss, Yasuhiro Nakasone was heard to mutter: "The probability for dissolution is still only about 55 to 60 percent; since there is a possibility that the party reorganization proceedings will drag into September precluding the chances of a dissolution." Takeo Miki also let it leak that, "Party reorganization comes first."

The target of the three tributary factions is partly party reorganization but more specifically the incorporation of the stipulation that "the chief executive would not be a member of the director's faction." They intend to use that as a personnel weapon to "shake up Ohira."

The non-mainline factions' actions are being supported by Abe, Nakagawa and by Ayanari Yano, chief of the secretariat of the Komeito party and former Committee Chairman Ikko Kasuga of the Minshato [Democratic Socialist Party] who smell an opening for felling the government. If it should come to that point "hundreds of devils could work in the open while the master schemes to protect his rights."

Will the tributary factions' "shake up Ohira" and "block dissolution" tactics bear fruit? First of all, because of individual situations peculiar to the respective factions, the three cannot operate in complete harmony. The Miki faction in particular, dragged its feet in responding to the Fukuda and Nakasone factions' invitation to join forces. Early in June Osamu Inaba, Shuji Kurauchi and Tadashi Kuranari called on Miki. "The three factions," they said, "must work in unison and come up with a candidate to successfully challenge Ohira for the directorship. With that in mind, we would like to hold a Fukuchusan trifaction conference." Although Miki agreed in principle he would not nod in assent to participating in a conference. A spokesman for the Nakasone faction, Shuyu Uno hinted that: "In the Miki faction there's an element which wants to 'cut Miki out.'"

"Cut Miki out" had specific reference to the power wielded by the Chief of the Policy Board Toshio Kawamoto who is close to Ohira. He is said to control two-thirds of the Miki faction with a change of labels being only a matter of time. It is alleged that this year's summer festival present was handed over by Kawamoto himself rather than by Miki. So from Kawamoto's standpoint, since "dissolution and general elections" offers a big chance for a turnover of the faction leadership, it is only natural that he's all for it.

The Miki of this Miki faction said at the general meeting on 19 June: "Psychological repercussions from the petroleum problem is escalating; there can be no dissolution until this problem is resolved." But the prevailing sentiment of the crowd was: "We've got to start running this summer." Jotaro Kato was the only exception, expressing his opposition in this manner: "Even if OPEC raises the price to 20 dollars causing an increase in consumer goods by 6 to 7 percent, there still wouldn't be anything to throw the economy into chaos."

FOR OFFICIAL USE ONLY

Election preparation is predominant in the minds of the majority of the Nakasone faction, too. "If I were Ohira," frankly admits the number two man Sadanori Yamanaka, "I'd undertake a dissolution this fall." Nakasone who has the reputation of being an astute political trend watcher, appropriately says: "I'm making no moves for the time being; politics are better when there's a little aura of uneasiness." He gives the impression of being one who sits back and takes in a panoramic view of the situation.

Even the Fukuda faction which is seen as the strongest of all the cliques, says of Ohira, "Cut out Matsuno and Kishi" to resolve implications into the Grumman-Douglas incident and in settlement of the one owed for protecting Kishi from attacks of the outs. Since Fukuda was Kishi's protege and Kishi is Abe's father-in-law, the psychological effect of such an act would indeed be great.

An interesting episode which reinforces this relationship is making the rounds: At a crucial point during the session of the Diet, Kanemaru received a phone call from Fukuda, the gist of which was: "Please cut off the continuing debate with Mr Kishi even if this means that the legislative measure falls through and leads to a dissolution." Although Fukuda circles deny that they owe one, the story, if true, wouldn't be surprising.

Veterans in the faction such as Foreign Minister Anoru Sonoda and Chief of General Affairs Tadao Kuraishi are of the opinion that, "Under these conditions, it's dissolution." Thus, a split is showing up between the veterans and the young hands.

Opposition Tactics

Ohira is assuming the posture of standing in favor of party reorganization. Rather than argue points involved in political funding, platform control, and abolition of factions separately there are indications that he will propose an overall basic plan. When that happens, how are the non-mainstream factors going to cope with it? As long as Ohira sticks to his political guessing game, refusing to "unsheathe the treasured sword," but awaits the opportunity "to ride the majority's natural groundswell for dissolution," aren't the tributary factions helpless?

Reaction among the outs is getting down to the nitty-gritty; the Socialist Party reached a decision to establish an election headquarters at its central executive committee meeting on 18 June. The Socialist Party's sole aim for the next session of the Diet is to "somehow prevent dissolution." Reneging on an indebtedness to Saito and the Ohira faction, Deputy Committee Chairman Shoichi Shitahara went directly to Zenko Suzuki to plead for "prevention of dissolution." The Socialist Party seemed to be typical of the strange tactics being undertaken by the opposition. When the Socialist Party with such actions on record, chose to establish an election headquarters, it is no wonder that the winds of dissolution have intensified.

The central executive committee's session on the 18th was not particularly stimulating. Makoto Tanabe, chairman of the legislative committee, explained that

FOR OFFICIAL USE ONLY

"as things stand dissolution cannot be prevented," and several others favored "getting preparations underway immediately." But as time passed no concrete steps were taken because, "there seems to be opposition to dissolution among the tributary factions within the LDP." The only real development was the decision to set up an election headquarters. The rather moderate Shitahira took off on a visit of China which put a further crimp in instituting any vigorous action. The Socialist Party seems to be relying on internal splits in the LDP; its "September dissolution" prevention measure boils down to "let someone else do it."

Regardless of any other measures they may concoct, the outs' tactic seem to be based on attending the extraordinary session of the Diet without allowing "Matsuno, Kishi" to be cut loose and wait for an opportunity to strike out with a "No confidence." There is no plan by the opposition to meet the "tobacco legislation" or the "ecology bill" with "Matsuno, Kishi" on the sidelines. Kanemaru has predicted that, "Even if the Diet is convened, there will be no opportunity for hearings." Ohira circles see "Dissolution as the only means through which fundamental changes can be made in the relation between the ins and outs." If things are allowed to progress on the present course, they will fall in line with Ohira's thinking. If there is anything that would upset such a development, it would be a second "oil shock."

Apparently Ohira circles are anticipating that "people's memory lasts for only 75 days" with pertinence to the Grumman-Douglas scandal. But we wonder if it will work out that smoothly. It is said that the late Eisaku Sato, the father of "wait it out" politics, pointed at Ohira and said: "That's a bad man." But one wonders whether the old bromide--"Bad guys sleep best"--will apply.

COPYRIGHT: Bungei Shunju Ltd 1979

8358

CSO: 4105

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

POLITICAL AND SOCIOLOGICAL

LDP PUTS LID ON LOCKHEED SCANDAL, OHIRA'S STOCK RISES

Tokyo SHUKAN ASAHI in Japanese 15 Jun 79 pp 166-169

[Article by Yuji Katsumata]

[Text] Sources say Prime Minister Ohira's reputation in the LDP is good and that he may be in power longer than expected. They say this is because of his skillful resolution of the latest aircraft scandal. It is the LDP, of course, which caused such utter confusion with the Lockheed scandal. Skepticism is still rampant among members of the various party factions, but it has been brought under control by the political expertise of Ohira.

As the aircraft scandal draws to a close, Prime Minister Ohira's well-known reticence has become even more noticeable. When the prosecutors' investigation was going on, the prime minister characteristically said, "If we don't step on the accelerator, we won't have to apply the brakes." He thereby left an impression of noninvolvement. After the focus shifted to calling former Prime Minister Nobusuke Kishi and Director General Raizo of the former defense agency as witnesses, he repeated, "The investigation is going on. I can't say anything until the facts are known." After hearing the results of the investigation from the Ministry of Justice, he insisted, "I am waiting to see what develops. I can't say anything now." His evasiveness goes beyond his words. Even when LDP party Secretary General Saito went to ask LDP President Ohira, what his intentions were concerning the matter of summoning witnesses, their talk lasted only 15 minutes. "The six leaders of the LDP have talked it over thoroughly," he said, completely giving the responsibility to them. Those on top take care of their business, those on the bottom take care of theirs. As for the meeting of the six leaders of the Party, "I leave the handling of things to Diet Policy Committee Chairman Kanamaru."

If you look at how the prime minister maneuvers to control the present situation, he completely avoids expressing his own judgments to the outside, and, even in matters of procedure, he entrusts the power of party president to leading members of the party. Ohira's methods are clearly

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

different from those of Prime Minister Miki at the time of the Lockheed scandal. At that time, it was Miki himself who made a bigger gesture than anybody, saying, "the government will put all its efforts into finding out the truth." He did such things as to call the party director in charge of the Lockheed scandal to his official residence, directly persuade people by phone, and then plunged into his "announcement"--confronting the "announcing of gray high-ranking officials" about which LDP members fussed over like stirred-up hornets.

But, what was the result of that? Miki was censured (by the late Shigeru Hori) for "not having any sense of compassion." He finally was dragged from his seat of political power having run into a "down with Miki" rebellion.

On the other hand, the prevailing view concerning Ohira's attitude is "He took the only stance he could take as a prime minister. In general it is not a matter of politics taking leadership." (Noboru Minowa of the LDP.) Even the head prosecutor is said to have related his thoughts as follows: "Miki is only concerned with public opinion. He does not take into account the LDP which is right at hand. In the end, because it led to the downfall of Miki, it was politically childish behavior."

I hope this statement does not connote that the prosecution, which is well known as "an ally of justice," appreciated the fact that former Prime Minister Tanaka was never called as a witness, and/or welcomes the fact that Matsuno's perjury indictment seems to end unresolved. However, with respect to Matsuno's testimony of the "500 million yen political contribution," Minister Ito, head of the Ministry of Justice Crime Bureau, who immediately the next day turned it into "a reward for success," when it came to the matter of perjury, said, "In my opinion, Mr Matsuno has done well in bringing himself to tell the truth. It's a subjective problem--we're not certain whether it's a matter involved with Phantom jets or whether it is purely a request for a political contribution." By throwing the water on Matsuno's testimony like this, the doubtful impression was left that even the prosecution was satisfied with adopting a policy of "minimizing" the dispute. The fact that the voice and wishes of the prime minister have not been heard on the subjects of the investigation into the facts and the pressing for political and moral responsibility results in a murky end to the affair. The prime minister, who was in the middle of those who said "down with Miki," said at that time (according to the MAINICHI SHIMBUN), "All politicians do the same thing. How can we bring about moral justice by simply being stubborn?" Supposing the prime minister thinks that way even now--not mentioning the beginning of a story "there was 500 million yen at first," but also "from the beginning there was no calling politicians to account."

FOR OFFICIAL USE ONLY

Miki and Inaba Keep Silent

Tokuma Utsunomiya, who in the midst of the Lockheed scandal withdrew from the LDP, deplored it and said in anger, "When we look at the results of the aircraft scandal, the fact that they are hiding the real nature of the LDP bribery is the same as the political settlement of the Kim Dae-jong affair. At that time Korea threatened 'if you pursue the Kim Dae-jong affair, we will disclose the names of those on the contribution list,' and thus the affair ended inconclusively. They have hidden 'the great evils' that were involved with post-war bribery."

Now that a conclusion has generally been reached, there are few criticisms of Ohira within the LDP. On the contrary, according to political analyst Kiyoshi Iijima, "The only one who came to light is Matsuno. By covering up the other politicians it seems he got a lot of power from those who were associated with the anti-Ohira group. Former Prime Minister Sato said, 'The strength of the prime minister is not understood by someone who has not been prime minister.' Isn't it Ohira who appreciates those words now?"

It can be said that the one who most effectively used the "wisdom" of Matsuno's "silence is the wisdom of the fool" is no one other than Prime Minister Ohira.

After the scandal broke it was not just the prime minister who kept silent. It seemed that the whole LDP contracted "aphasia" with respect to "the investigation of the facts."

There is the awareness that "the Lockheed scandal invited the shocking scene of the former prime minister's arrest, but the bigger reason is that the scandal was tied to military aircraft which affect the national security--and which are different from purchases of civilian aircraft. From the viewpoint of the LDP, it was a crisis which rocked the very foundation of the party organization."

At the same time, it can be explained why this could only happen within the LDP which is a coalition of various factions. Each faction had a problem of its own because there were weaknesses of the sort that every one of the factions--including Ohira's--had Diet members with guilty consciences.

Kishi was in the Fukuda faction, which happened to make the Ohira faction most nervous. At any rate, Kishi is a "ghost" figure and according to an LDP Diet member, the scandal as it now appears is nothing compared to Kishi's actual sphere of influence that has involved the whole post-war LDP body politic. The refusal to call Kishi as a witness is "profitable" for the LDP as a whole, but his main source of protection is the Fukuda faction, which succeeded the Kishi faction. Former Prime Minister Fukuda

FOR OFFICIAL USE ONLY

was raised as a "prince" by Kishi, and Shintaro Abe, who is definitely seen as inheriting Fukuda's faction in the future, is Kishi's son-in-law.

There is no demand from the Fukuda faction for a "thorough investigation of the truth." The dissatisfaction toward the prime minister was rather dissatisfaction over the fact that "Kishi's name was carelessly publicized." However, (says a Fukuda-faction Diet member), judging that "there is the fear that raising an ill-conceived fuss will have the reverse effect," publicly he kept silent.

The Miki faction, which had the most reason to raise a fuss, was in a predicament if looked at from the viewpoint of its being a faction. This is because Matsuno, whose name was mentioned from the beginning of the affair, held the position of "political coach" of the Miki faction since the LDP presidential election at the end of last year. Matsuno, who once served as the chairman of the LDP Policy Affairs Research Council and as chairman of the Party Executive Council in the Miki cabinet, dropped out of the Fukuda faction. He said, "If I had met Miki 10 years earlier my political life would probably have been different," and at a stroke drew nearer to Miki. There is no reason to expect that Miki thinks badly of him. Even when the Diet was in the midst of floundering over the "summoning of Matsuno," Miki never said anything. This was despite the fact that he was the very person who had so feverishly sought answers to the Lockheed scandal. With respect to his close associates who visit him at his private residence, he reveals his displeasure by saying, "It's not only Matsuno---isn't it strange not to call Kishi as well?" But according to someone familiar with the situation at the time, "the situation will not develop so far as to summon Kishi if both Kishi and Matsuno were to be summoned. This is to say that it was logical for the Miki faction to save its face with respect to Matsuno by being against summoning only Matsuno."

It one speaks in terms of the differences between now and the time of the Lockheed scandal, even the well-known former Minister of Justice Osamu Inaba (in the Nakasone faction), like Miki, was discreet in speaking to outsiders. Even when asked by each news service to make a comment, he refused. Mr Iijima reports that Nakasone himself said "I have poor qualifications for speaking on the matter of the investigation." There is only the worry that the Era Name Bill, which we still hope will be passed in this session of the Diet, will be temporarily put off by this affair.

Shots Taken at Chief Secretary of the Cabinet Tanaka

"The only one to be branded a bad guy is Tanaka Kakuei, but you should know who the worse one is," said the Tanaka faction in a self-satisfied way. The introduction of E2C (early warning aircraft), which Nissho Iwai contracted for, was ignored in the present investigation. The Hawaii conference attended by both, then Prime Minister Tanaka and Foreign

FOR OFFICIAL USE ONLY

Minister Ohira, was diverted from its intended object, and many people had misgivings about the conference. Concerning the fact that political contributions from Nissho Iwai stopped from 1972, Matsuno said at the summoning of witnesses in the Lower House, "In 1972 the Tanaka cabinet was formed and we saw a change in politics." It was a casual remark but depending on how you take it, it can be understood as going out of its way to suggest the existence of a scandal since 1972. Actually, a person who is privy to the inner workings of Nissho Iwai asserts: "The overseas department cut off Matsuno and switched to the Tanaka cabinet, but they continued their relationship with Kishi. If the prosecutor calls in Kishi, he will drag in Tanaka. Covering Kishi is equal to hiding Tanaka." The silence of Tanaka, which is supposedly due to his being "penitent," does not seem to simply be putting up a front.

A fire has ignited at Prime Minister Ohira's feet. One can say it is a scandalous matter rather than a suspicious case in which Chief Cabinet Secretary Rokusuke Tanaka was accused of wrong doings from both inside and outside of the party. In brief, it entails: "A large political contribution from Nissho Iwai"; "acting as a mediator in 'back-door entrance' to the Fukuoka College of Dentistry"; "Tanaka was the one who took Tanaka to the Kishi office" (Arimori interviewed by Kyodo News Service); "participation in driving out the then Defense Agency Chief Kaihara" (the third Kaibe memo); "interfering with the building of a local rest home" (in-fighting between Shuji Kurauchi, then the speaker of the Lower House); and, last, there is the Egawa case. He tried to make contact with Nagayoshi Nakamura who was head of the Crown baseball team (and Kishi's secretary) and Mr Hasumi of the Funada office and hand them 100 million yen in cash and 30 million yen in a separate payment. (According to the Hasumi memo reported in the SHUKAN BUNSHUN.) As in the third Kaibe memo, the prosecutor decided it was the "Kaibe's bluff." There was another case in which the chief cabinet secretary himself accused Kaibe that he has been acting like a scandal-maker. In the anti-Ohira stratum of the LDP, there was a group that was enraged and declared: "If our purpose is to strike Kishi down (or Matsuno), Chief Cabinet Secretary Tanaka cannot get away free!"

In particular, since Tanaka made public the affairs between Matsuno and former Takarazuka actress Noboru Kozuki (which Tanaka denies), it has become like a mud-slinging match. The anti-Ohira group instigated Kurauchi to give a press interview critical of the chief cabinet secretary. The idea was to let out the phony information that there would be a "Hasumi confession," and that "something would happen on May 30." It seems that the chief cabinet secretary had to endure a great amount of "shooting at" just because the prime minister was careful in not leaving himself open to attack.

On the other hand, from the mainstream faction Ohira group, we hear, "If we don't act now the Era Name Bill will not be approved. Is that

FOR OFFICIAL USE ONLY

what you want?" (Secretary General Saito). A movement was seen to restrain the anti-Ohira group which includes many Tanaka faction members. In the news there was suddenly the report that "a rebate of 130 million yen was given to two former prime ministers who were involved with the Seoul subway scandal. The National Tax Administration Agency will check this in its investigation." It was certain that the never-mind intention and authenticity of that accusation, at any rate, dampened the anti-Ohira group's enthusiasm.

According to those around the chief cabinet secretary, "for a while Tanaka was seriously worried, even to the extent that he was probably thinking of resigning." This may have been due to the continuation of this "secret feud."

However, after hearing the final report of the prosecutor "his attitude remarkably changed for the better." He even showed that he had the time to go to the big Waseda-Keio baseball game. It is said that the prime minister clicked his tongue over this sudden change. He had told the chief cabinet secretary, "Resign yourself to hatred; share the blame." He expressed his relief by saying, "Well, I feel better now."

The Inner Party Which Marvels at the Shrewd Ohira Style

The Douglas and Grumman scandal, which was said at first to be larger in magnitude than the Lockheed scandal, wound up as if a curtain were drawn even before the case was pursued to draw out names of politicians. In other words, legal action against politicians could not be expected to be taken in the end. If we look at the results, Matsuno, who alone was placed in the front line of the battle in the midst of the politicians "as the nearly guilty innocent one" was someone who looked upon himself as the agent of the anti-Ohira union of Fukuda, Miki, and Nakasone factions. However, as a politician he received a fatal wound in the scandal, and he became disqualified even for the role of a manipulator behind the scenes. A member of the opposition party (Hiroharu Kakizawa, New Liberal Club Member of the Upper House) said: "They settled the affair for the reason that peace should be maintained within the LDP. If they lost the people's trust in politics, they would lack the qualifications to be present-day political leaders." Now, such a statement expressing dissatisfaction should be expected to surface among the opposition party members.

Even from within the LDP, one hears the statement like, "Ohira's shrewdness has become obvious. Realistically, shrewdness is necessary in politics, but it lacks a romantic touch. Sad situation, isn't it?" (Akira Hatano, member of the Upper House). People sigh and lament Ohira's poor professionalism. Noboru Minowa, who has been former Prime Minister Sato's secretary, said: "The tendency to act thoroughly and without haste after

FOR OFFICIAL USE ONLY

having ascertained the situation closely resembles Sato's tactic. Ohira's political power may continue for quite some time." After the "political solution" of the aircraft scandal, the atmosphere in the LDP immediately relaxed. This may be the sense of direction Diet members had after they saw what was to come.

The prime minister is already looking toward next year's Upper House election and has begun choosing candidates for it. This is because the selection [of right candidates] is crucial with respect to his hopes for winning reelection in the presidential election which will be held half a year later. He seems sure of himself when he says, "there is probably no problem" extending the president's term of office from the present 2 years to 3 years. It seems that his political agenda is based on a "weaving together" of the Tokyo summit at the end of this month and the dissolution of the Lower House of the Diet in the fall.

The problems are the oil crisis and inflation, which are expected to come to the fore at the beginning of autumn. Former Prime Minister Tanaka who is extraordinarily interested in economics, criticizing with his characteristic turn of phrase, says, "Fukuda is too slow; Ohira is negligent." Can economic management, which is vulnerable to outside pressures, succeed only through internal party manipulation--which turned out to be the only type of "political settlement" demonstrated with the aircraft scandal?

COPYRIGHT: Asahi Shinbunsha 1979

9391
CSO: 4105

FOR OFFICIAL USE ONLY

POLITICAL AND SOCIOLOGICAL

JCP'S FUWA LINKS COMING MIYAMOTO-BREZHNEV MEETING, NORTHERN ISLES

OW121615 Tokyo MAINICHI SHIMBUN in Japanese 12 May 79 Morning Edition p 2 OW--
FOR OFFICIAL USE ONLY

[Text] Fuwa, chief of the JCP secretariat, at a press conference in the Diet building on the afternoon of 11 May referred to the issue of northern territories and a meeting which is expected to take place in the near future between JCP Chairman Miyamoto and Brezhnev, suggesting that Miyamoto at this meeting may be able to obtain a positive Soviet reply concerning the territorial issue. Fuwa said: "Our party is not bound by the San Francisco treaty. Furthermore, we pursue a foreign policy line of nonalignment and neutrality. Therefore, we think that we can expect a different development in our talks with the Soviet side--different from those in the past negotiations between the Japanese and Soviet governments in which the USSR kept insisting that "the territorial issue is one that has been resolved."

CSO: 5200

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

MILITARY

JAPANESE EXPORT OF MILITARY EQUIPMENT TO ISRAEL ALLEGED

Tokyo SHUKAN POSUTO in Japanese 29 Jun 79 pp 20-24

[Text] An actual case of the widely rumored arms exports has been disclosed by an arms broker. He says that a special Japanese-made vehicle which should be delivered only to the Defense Agency has been assembled in South Korea and taken to Israel. Investigation of a mystery presented by a "stolen photograph" brought to light the surprising situation in connection with Japan's three principles on arms export which have become a set of easily circumvented regulations.

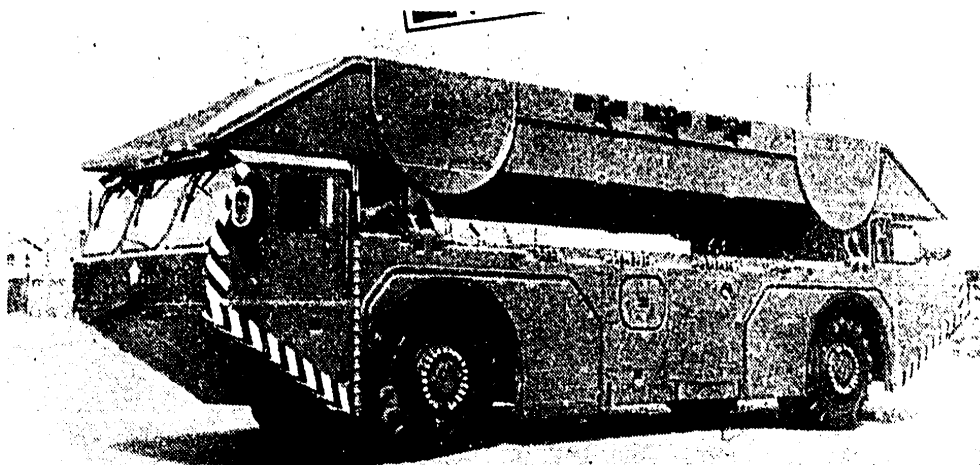
"At least one or two weapons brokers like myself ply their trade with a Japanese weapons maker."

Mr A, who told us this on the condition that his name be kept confidential, deals in arms exports, mainly to Southeast Asia and the Middle East. Currently there are about 100 firms which belong to the Arms Industry Association. Thus, there are from 100 to 200 arms brokers in Japan. Furthermore, we are told that not a few of these people are literally "merchants of death" who travel to South Korea, Southeast Asia and the Middle East scheming to sell Japanese-made weapons.

In connection with the situation in Japanese arms exports, Mr A first showed us a photograph (printed above) and said, "This was secretly taken 5 years ago at a certain plant in Japan. I can in no case say when or where it was taken." According to his explanation, the picture is of a self-propelled bridge. A self-propelled bridge is a vehicle which "is used as a bridge or, by linking with other similar vehicles, as a pontoon bridge to carry tanks or mechanized units, mainly combat support units, quickly across rivers" (1978 Self Defense Force Equipment Yearbook).

"Actually, I guided a person connected with the Israeli Army who had come to Japan to the plant which manufactures this 'Product.' This was 5 years ago. At that time weapons were in very short supply in Israel because of the three Middle East wars coming one after another. For that reason, various groups from Israel came even to Japan to negotiate arms purchases. The party I was guiding was one of these. They had a strong interest in the Japanese-made

FOR OFFICIAL USE ONLY



floating bridge. I wanted to show them the actual object and get a purchase contract in one move. That was my idea in going."

Mr A, however, was counting his chickens before they were hatched in thinking that he would purchase the self-propelled bridges for 300 million yen each (the price at that time) and sell at 330 million yen, a margin of 10 percent.

"But after the Israeli Army people returned to Israel I received no word from them at all; I heard nothing.

"I inquired later, 'What happened?' The answer came back that it had been decided to buy through a certain Japanese trading company. I felt that I had been taken."

Nevertheless, Japan has a three-point policy on arms exports. In the Diet in April 1967 the Sato Cabinet, which was then in office, announced these principles as the unified view of the government. The three principles say that arms exports will not be allowed 1) when they are destined for communist bloc countries, 2) when they are destined for countries to which arms exportation is prohibited by United Nations resolutions, and 3) when

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

they are destined for countries currently involved in or likely to be involved in international disputes. In practice, Japan does not approve any arms shipments at all. Furthermore, principle 3 applies in Israel's case. We asked Mr A about this, "From the standpoint of the three principles on arms exports, one would expect such exports to Israel would not be allowed; do you not think so?"

"That is right. But there are ways around this. If one were to try to export the finished product no export permit would be forthcoming from MITI, but if the item is sent as 'parts' there is hardly any problem. To say this may be going a bit too far, but even a tank, when the upper gun turret is removed, has little to distinguish it from a bulldozer to anyone but the expert."

"Then the self-propelled bridge, too, was exported as parts?"

"Yes. I, myself, was politely told by the manufacturer that export would be possible if this were done. In short, it would be all right to completely detach the bridge section which is connected to the upper part of the vehicle itself and then to export the main body first and export the bridge section later as parts."

"What route would the exports take?"

"From what the Israeli military people say they decided to get permission for exportation as a special personnel carrier and export first from Japan to South Korea. Then, the 'parts' which would be sent later would be received and the finished product assembled in South Korea and exported to Israel."

According to what Mr A said, the matter was arranged in just this way.

Following up on the lead provided by the information and photograph received from Mr A, we pursued the situation in arms exports further.

First, we deduced the manufacturer of the self-propelled bridge from the photograph. When we looked into the "Self Defense Force Equipment Yearbook" there was a self-propelled bridge which was nearly the same as the one in the picture we had received. It is the "Type 70 Self-Propelled Bridge." The maker is Hitachi Seisakujo.

According to the Self Defense Ministry, this Type 70 Self-Propelled Bridge "was developed independently by Japan, is the largest and newest floating bridge in the world and is an excellent vehicle by any standards."

Its total length is about 21.4 meters; total width, about 2.8 meters (5.4 meters on water); total height, about 3.5 meters; maximum speed, 50 km per hour (propeller driven on water at 20 km). It can permit crossing by heavy vehicles weighing up to about 38 tons.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

However, upon close examination of the picture in question, there were clearly parts which are different from the picture of the Type 70 Self-Propelled Bridge printed in the "Equipment Yearbook." For example, the cut of the design on the side of the bridge support portion of the upper part of the vehicles' bodies is different, and there seems to be a difference in the cut of the design around the tires. Also, in this picture, the bridge deck between the supports and the main body of the vehicle is not visible. Furthermore, differences in the size and configuration of the driver's seat door can be recognized.

On this point, Mr A had this to say: "The weight which can cross over the Type 70 is 38 tons, but the weight which the exported self-propelled bridge can support is 45 tons. In short, from the outside this appears to be nearly the same model, but has construction which is one step better as far as capacity is concerned."

Incidentally, there are appropriate reasons why the capacity of the Type 70 Self-Propelled Bridge is 38 tons.

(Mr Eio Ikata of the public relations office has said:)

The weight of the new Type 74 tank which was developed by our firm and delivered to the Defense Agency is about 38 tons. It is, therefore, in conformity with the capacity of the Type 70 Self-Propelled Bridge."

Conversely, we have testimony that there are appropriate reasons why the capacity of the self-propelled bridge exported to Israel was increased.

"The main strength of the tanks with which the Israeli Army is equipped is the British-made medium tank 'Centurion' and heavy tank 'Chieftain.' The weight of the 'Centurion' is from 40 to 45 tons." (Military Commentator Shigeru Matsui.) But what would the important company, Hitachi Seisakujo, reply concerning the question of exportation of the self-propelled bridge to Israel?

We made inquiries based on the photograph we obtained from Mr A. The chief of the President's Office of Hitachi Seisakujo (Jo Kuramoto) responded.

"The self-propelled bridge in this picture was certainly developed in our company's machinery and electronic industrial headquarters and manufactured in our (Kasado) plant in Yamaguchi Prefecture. However, I cannot say anything about when it was developed, how many were produced or the price of the vehicle. Furthermore, I would like you to remember that we have never exported the Type 70 Self-Propelled Bridge to a foreign country either as parts or as a finished product."

This is a complete denial, but what in the world does it mean? His views are a little bit off the mark.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

(A certain heavy industrial manufacturer says:)

"This is a matter of a special vehicle; it would not be impossible to export a floating bridge. When MITI gives permission to export it would not run tanks up on the thing to test it. MITI would decide from the catalog."

Is South Korea an arms assembly base?

If so, then the incident involving hand grenades being shipped to the Philippines, which was exposed in July last year, was a case in which the "Korean route" was used as in the case of the Self-Propelled bridge being exported to Israel.

The President of Fuji Industrial, Katsuo Kanazawa, who was the person involved in this incident and who was sentenced to a year and 8 months in prison with a 3-year stay of sentence in Tokyo District Court on 16 March this year had the following to say about the facts of this case.

"For a long time I had been associated with people connected with politics and the military in the Philippines. I even know President Marcos from the days when he was a soldier. He and his wife Imelda have even visited my home. This being the case, sometime around 1974 an old friend from the Philippines who is connected with sports said there was some arms work and invited me to give it a try. It was a matter of exporting fuses for hand grenades used in training. Accordingly, I talked with Japanese makers of fuses, but at (Nihon Koki) I was told that fuses cannot be exported because they use gun powder. Distressed at this, I approached the Philippine people and said that I would like to leave out the powder and get permission to export the fuses as parts. They asked me to go ahead and do this because they would procure powder from the United States or South Korea and do the assembly work locally.

"So, I applied to customs by referring to component parts, received formal permission from the Tokyo MITI authorities, and beginning in March 1976 exported about a million parts of fuses to the Philippines.

"About 11,000 sets were wanted urgently; so, we exported them to Korea and then exported them after loading in the primer (explosive used in the fuses)."

If we let Mr Kanazawa tell the story, other arms makers have been doing this sort of thing.

"For example, it is commonly known in the industry that Japanese arms makers have been exporting arms by tying up with Korean arms manufacturers. Mainly during the war in Vietnam small and medium sized arms manufacturers, myself included, were involved in making 'small bombs' on consignment from the large firms. Later, items such as barrels for 60-mm M mortars which were being used in counter-guerrilla measures on Luzon and Mindinao in the Philippines, were exported from Japan under the name of 'parts'."

FOR OFFICIAL USE ONLY

At any rate, since arms exports from Japan cannot be shipped as finished products, there appear to be frequent cases in which South Korea is used as a base for assembling the arms. Hitachi Seisakujo, which makes the self-propelled bridge we mentioned above is, in fact, a firm with very deep ties in South Korea.

"As we know from the issue involving delivery of rolling stock for the Seoul subway, Hitachi Seisakujo has longstanding, deep connections with Korea. In particular, such firms as Taeu Heavy Industries and Taehan Heavy Machinery are South Korean firms which are connected with Hitachi. Both are very influential South Korean manufacturers of heavy machinery. Taeu Heavy Industries has a plant at A-6 in the Changwon machine industries area at Masan, which is famous as South Korea's largest industrial zone for military supplies. Taehan Machine Industries is also building a plant in the Changwon industrial complex. Of the two, Taeu Heavy Industries is the arms maker which was brought into question by being pointed out in the final report of the (Fraser) Committee which was presented to the United States Congress in October last year. The report said that the South Korean Government's soundings regarding arms exports to Malaysia were made through Taeu" (an economic journalist who is well versed in questions of Japanese-Korean economic cooperation).

At this point it is not clear what were the personal relationships behind this matter of the Japanese-made self-propelled bridge having been exported to Israel. According to Mr A, since 10 vehicles were to make up one set, probably 10 to 20 vehicles were exported.

Might it not be said that on the reverse side of the debate over national defense which is being enthusiastically carried on, the three principles on arms exports are now being torn down step by step and are nominal rules with no real effect. Taking advantage of this situation the Japanese weapons makers are devoting extraordinary interest to the "concept of an arms repair center" which is currently making headway mainly in ASEAN (Association of Southeast Asian Nations).

Mr Kanazawa tells us about this:

"Among the countries of ASEAN there is a movement to try jointly to build a weapons repair center.

"All of these countries are supplied with old weapons from the United States, but they do not have the technology to repair weapons which are out of order, nor do they have the capital to build a weapons repair center.

"If they were to send weapons individually to America or elsewhere for repair the cost would be high. Furthermore, there are frequently cases when items are already out of production in the United States and repairs there are disappointing. Therefore, the concept of jointly building a weapons repair center on their own has now advanced to the governmental level among the ASEAN countries."

FOR OFFICIAL USE ONLY

Mr Kanazawa goes on to say that the ones who have leaped at this idea are the Japanese weapons industry.

"Initial orders, if this concept were to materialize, have been estimated at about 80 billion yen. Furthermore, there is also a movement to use this weapons repair center as a focal point for trying to build unified standard weapons for the ASEAN countries. This is a topic that involves a lot of vested interests. Already, in addition to the Philippines, such countries as Singapore and Korea have announced that they are candidates for the site of the center. Even in Japan, the arms manufacturers are anxious to get into the discussion. For example, the Philippines is the site of sharp competition for concessionary rights among our group, a certain large Japanese firm which is cooperating with Korean arms makers, a Taiwanese group and a group backed by American capital and technology.

"As I mentioned earlier, I have connections with President Marcos and because of this I had supported the group from the Philippines which was seeking to provide the site. Backing me were Raizo Matsuno and other important members of the Diet from the LDP and a certain firm. These backers had promised to help me. Actually, I do not think that my having been caught up in the arms export incident was entirely unrelated to this talk of a weapons repair center. In short, a clever trick was played in order to drive our forces out of the talks on the center. Undoubtedly, the perpetrators of the plot were the forces of a certain large Japanese firm which is tied up with Korean arms manufacturers."

Prefacing his remarks by saying that MITI still has not caught up with this information, a certain official gave this interpretation:

"Talk of a weapons repair center is fully conceivable. Given the formation of pro-Soviet regimes in Vietnam and Cambodia, the war between Vietnam and the PRC, and the Taiwan question, the ASEAN countries have a sense of danger which is unimaginable in Japan. One after another government leaders have been making statements calling for strengthening self-defense and fighting capabilities. It would be effective for Japan and the United States to back up ASEAN in the areas of military production rather than directly supporting them in military matters."

The Japanese arms makers are eagerly watching for an opportunity to export weapons.

"As far as the manufacturers are concerned, since they cannot make profits on domestic orders alone, they can only hope for exports (military commentator (Ryozo Kubo)).

In this sense, the matter of a self-propelled bridge having been exported to Israel can be called symbolic, but if the situation continues where "principles" are not respected as principles, Japan will probably at some time or other become one of the world's leading arms exporters.

COPYRIGHT: Shogakkan 1979

26

9111
CSO: 4105

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

ECONOMIC

EXPERTS REFLECT ON OVERSEAS CRITICISM AGAINST JAPAN

Tokyo NIHON KEIZAI SHIMBUN in Japanese 10 Jul 79 p 11

[Article by Naoaki Okabe, in charge of economic affairs, NIHON KEIZAI SHIMBUN]

[Text] "The Japanese are workaholics who live in rabbit hutches." These now famous words are taken from the EC Commission's "Paper on Strategies towards Japan." Their author was Sir Roy Denman, director-general of the External Relations Commission of the EEC. A man of considerable influence in the EC Commission, he has visited Japan many times to participate in European-Japanese trade negotiations.

It is said that the director-general took especial care to add these words at the time that the document was being drawn up. Although the paper was originally secret, rumors are that it was deliberately leaked. In any event, the expression was quite shocking to the Japanese people.

The term "rabbit hutches" does not necessarily refer only to Japan's housing situation. It is also aimed at the Japanese economic system itself as having achieved its preeminence through exports even at the expense of the environment. Japanese-made automobiles and color televisions are definitely high quality, but on the other hand Japan's living conditions are poor. The phrase seems to be pointed at this imbalance. Most of Japan's imports are raw materials which are processed for export. The impression received is that others feel Japan is more concerned with turning out exports than with the living conditions of its people.

Smarting From a Rapid Jump in Oil Consumption

At the advanced nations summit conference in Tokyo to be held the latter part of this month, it is anticipated that one item of attention will be adjusting Japan's economic structure. There are various views as to what "adjusting" means, but the United States and others have emphasized that the first step is to change Japan's structure of an export-led economy. They just have not been able to erase their trade imbalances, and it appears that these countries, which are trying to stimulate their own economies, are starting to think that the root of their problems lies in Japan's economic

FOR OFFICIAL USE ONLY

structure. Since Japan has no resources of its own, to some extent it must export in order to be able to import resources. However, the problem is the "tempo" of export expansion. According to UN statistics, during the 10-year period between 1968-78 world exports increased 5.5 times (excluding the communist bloc countries, on a dollar basis). However, the United States increased only 4.1 times and West Germany 5.7 times in contrast to Japan's 7.5 times. Even in looking at the percentage of world exports per country, the United States dropped from 16.2 percent to 12.2 percent and West Germany went from 11.8 percent to 12.2 percent. Japan jumped from 6.1 percent to 8.3 percent.

On these grounds, it cannot be said there are no reasons behind criticism of Japan that it is "exporting unemployment." If only because of rising protectionism from a stagnant world economy ever since the oil shock, Japan's exports have become particularly conspicuous. Although Japan's exports have languished this past year because of the yen exchange rate, at the approach of a more favorable rate others are already beginning to say, "Japan will undoubtedly expand its exports again." (U.S. Secretary of the Treasury Michael Blumenthal) Apparently in their minds Japan's export potential poses a big threat.

On that point, another issue is the fact that although Japan is a small country that should require few resources, it has become a large consumer of the resources of other countries. During the 10-year period from 1966-76, world oil consumption increased 1.7 times (including the communist bloc nations). Of this, the United States increased 1.4 times, and West Germany 1.6 times. In contrast, the quantity consumed by Japan skyrocketed 2.5 times. Moreover, most of that came from imports.

In particular, in the OPEC meetings to be held just prior to the Tokyo summit conference, oil prices are expected to be hiked again. The oil consuming countries must hurry to conclude oil agreements before then. However, Japan has a very difficult time concluding oil agreements. As opposed to countries like the United States where the public uses a high percentage of oil for such items as gasoline for automobiles, in Japan most of the oil is used by industry. If Japan makes overly strong oil contracts, it runs the risk of pulling the legs out from under the economic recovery. The advanced countries are not the only ones criticizing Japan's rapid increase in oil consumption--the non-oil producing developing countries are also very critical.

Political-Cultural Gaps

Moreover, in spite of the fact that Japan is a large oil consumer, its relations with the oil-producing countries are not that good. In spite of all its problems, the United States somehow sets them aside and works to bring its political power to bear in stabilizing the Middle East. The West European countries also have strong historical ties with the Middle Eastern countries. Since the oil shock, Japan has embarked on economic cooperation

FOR OFFICIAL USE ONLY

programs such as in the petro-chemical industry, but its efforts have been miniscule compared to its large energy consumption. "Compared to its economic power, Japan's political influence is weak. This imbalance has been another reason behind criticism of Japan." (Mr Shinno, director of the International Economics Department, Ministry of Trade and Industry (MITI)).

Of course, the lag in Japan's social capital also has the effect of making its export-led economic structure even more conspicuous. Although the situation is not quite as bad as "rabbit hutches," living conditions in Japan are definitely not good. Still, the cost of land is different. According to the White Paper on Use of National Land, the price of 1 square meter of land in Japan (1976) was 35,000 yen. In West Germany the same square meter would be about one-sixth the cost at 6100, and one-ninth as much in the United States at about 3900 yen. The number of rooms at four per house averages one less than that of the United States. The size of Japanese houses is also considerably smaller.

Japan is also behind in the spread of two-day weekends. Although the Japanese are called "workaholics," to some extent they have no other choice. According to studies of workers, as of September last year 44.7 percent of businesses were introducing two-day weekends, but only 5.6 percent had completely adopted this practice. In contrast, 93 percent of American workers have two days off, and 60 percent of West German workers.

Much of the criticism of Japan is based on objective facts. Working hard, increasing productivity, and engaging in competition in the area of exports seems to turn people upon you. In its worst sense the situation is one of being upset that they are no longer the smartest student in the school. The Europeans and others have not accepted this point of view. There is fear that a gap may occur from failure to accept this fact. Of course, in other areas criticism of Japan is clearly based on misunderstandings. One example is others' failure to enter the Japanese marketplace, and even going so far as to say that the Japanese language itself is a non-tariff trade barrier.

Certainly different customs and lifestyles can be a nuisance. However, once this cultural gap is recognized for what it is, it is necessary to work to remove it. Many of the merits of the Japanese culture have not been accepted by the rest of the world.

For example, take the following incident. This spring, Japan and France were engaged in a fierce struggle over increases in capital contributions to the World Bank. Having the second largest GNP in the world, Japan desperately wanted to surpass France in percentage of contributions to the World Bank. In order to be allowed to do so, demands were made that Japan increase its world aid efforts. Japan insisted that it would give as much as necessary. Of course France did not want to play second fiddle to Japan and it attempted to save face. The Central American delegate responsible for making the adjustment was at his wits' end. In the end, he made the following decision.

FOR OFFICIAL USE ONLY

"Out of respect for the French culture." No one could misunderstand what that meant. Japan was not allowed to surpass France.

JAPAN TRADE TRENDS

(Units are millions of yen, figures in parenthesis are comparisons with the previous fiscal year (percentage of increase), - denotes minus)

| Fiscal Year | Exports | Imports | Export Surplus |
|-------------|----------------|----------------|-------------------|
| 1967 | 38,784 (8.2) | 43,420 (20.4) | -4,635 |
| 1968 | 49,215 (26.9) | 47,843 (10.2) | 1,371 |
| 1969 | 60,472 (22.9) | 57,612 (20.4) | 2,860 |
| 1970 | 72,901 (20.6) | 69,670 (20.9) | 3,230 |
| 1971 | 84,706 (16.2) | 68,225 (-2.1) | 16,480 |
| 1972 | 90,709 (7.1) | 76,594 (12.3) | 14,115 |
| 1973 | 108,772 (19.9) | 123,691 (61.5) | -14,919 |
| 1974 | 170,796 (57.0) | 182,763 (47.8) | -11,966 |
| 1975 | 170,261 (-0.3) | 173,962 (-4.8) | -3,701 |
| 1976 | 206,684 (21.4) | 197,128 (12.9) | 9,556 |
| 1977 | 217,903 (5.4) | 185,885 (-6.1) | 32,818 |
| 1978 | 199,898 (-8.3) | 170,566 (-7.8) | 29,331 |

COPYRIGHT: Nihon Keizai Shimbunsha 1979

9180
CSO: 4105

FOR OFFICIAL USE ONLY

SCIENCE AND TECHNOLOGY

MITI TO SET UP 'FUTURE ENERGY RESEARCH AND DEVELOPMENT SUBSIDIES'

Tokyo NIKKAN KOGYO SHIMBUN in Japanese 5 Jun 79 p 1

[Text] The Agency of Industrial Science and Technology, Ministry of International Trade and Industry [MITI], has announced that it has firmed up its policy of establishing a new "subsidy system for future energy technology research and development" aimed toward utilizing the vitality of private industries to promote the development of oil-substitute energy resources. It also stated that it will actively promote the new policy in JFY 1980. Reflecting the scarcity of funds in the JFY 1980 budget, the Finance Ministry is taking a severe attitude toward inception of the new system, which will require a large amount of funds. However, the development of oil-substitute energy is indispensable from the standpoint of Japan's energy policy hereafter. Therefore, realization of the new subsidy system is hoped for, to provide, in addition to the government-led "Sunshine" and "Moonlight" projects, a stimulus to the desire in private industry for development of new energy sources.

First Year Goal 5-10 Billion Yen

The Agency of Industrial Science and Technology has pushed the "Sunshine" project (research and development for new energy technology) and the "Moonlight" project (research and development for energy-saving technology) as government-sponsored measures to cope with the problems of energy. At the same time, it has grappled with an undersea oil production system (JFY 1978-84 development period) on the basis of the large-scale projects system (research and development of large-scale industrial technology). Also, in addition to such government-led projects, it has granted subsidies for important research and development in the private sector on the basis of the system for subsidizing important technological research and development, especially for the advancement of high risk development in mining and manufacturing industrial technology. However, the system for subsidizing important technological research and development is directed widely to mining and manufacturing technology in general. Moreover, the ceiling for the JFY 1979 budget is approximately 3 billion yen, which means only 300-500 million yen for each subsidized item, and demonstration plant construction has been limited to small-scale experimental plants.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

On the other hand, the Agency of Industrial Science and Technology feels that the development of oil-substitute energy is indispensable from the standpoint of Japan's energy policy--as displayed, for example, by the recent agreement at the International Energy Agency (IEA) Council of Ministers. In order to develop such new energy, a vast investment in research and development is necessary. Also, in order to ascertain whether truly efficient energy can be developed, it is necessary to build experimental plants on an industrial scale and obtain operational data. The agency feels that the current subsidy system is inadequate to meet this need and it is aiming for the establishment of a new subsidy system.

Especially in private development of new energy, furnace top pressure electric power generation, which utilizes waste heat from blast furnaces, is used in 15 out of 40 blast furnaces in operation and results in an annual savings of more than 250,000 kiloliters oil equivalent. Therefore, with the establishment of a research and development subsidy system for new energy, private incentive for the development of new energy will be bolstered to stand with government initiatives and progress of technology research and development is anticipated for both government and private sides.

Under the new system, there will be strong incentives for development in the utilization of coal, especially brown coal, and for thermal power generation and wind power generation not based on the air turbine principle. Moreover, large subsidies will be provided for development of high risk projects to provide sufficient incentives for development. With this in mind, the aim is to secure between 5 and 10 billion yen in the budget for the first fiscal year and an active campaign will be waged in the sectors concerned in order to realize the new subsidy system.

COPYRIGHT: Nikkan Kogyo Shimbunsha 1979

5884

CSO: 4105

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

SCIENCE AND TECHNOLOGY

EDUCATION MINISTRY TO START TWO LONG-TERM ENERGY PROGRAMS

Tokyo ASAHI EVENING NEWS in English 6 Aug 79 p 3

[Text]

The Education Ministry has decided to start two long-term energy research plans—a 10-year study of nuclear fusion and a 7-year project on other alternate energy sources—from fiscal 1980.

The scientific research subsidy system will be utilized to invest about ¥25,000 million in the nuclear fusion plan and about ¥11,100 million in the search for other energy sources.

Both projects will be carried out by scientists from universities throughout the nation in order to promote basic research on sciences connected with energy.

According to the Education Ministry project on nuclear fusion, the goal will be to trigger nuclear fusion with tritium through various methods, including with laser beams. Researchers will also study materials appropriate for use in nuclear reactors as well as the long-term effects on living matter.

Although some of these objectives can be achieved in existing laboratories, there is still a need to mobilize the creativity and enthusiasm of scientists and organize their activities.

Several hundred researchers will be selected and divided into six groups to study (1) reactor materials and interaction of plasma walls, (2) tritium science and engineering and influence on living matter, (3) basic control of nuclear reactor core, (4) development of an ultra conduction magnet, (5) design and evaluation of a nuclear fusion reactor, and (6) comprehensive research.

The comprehensive research team will evaluate the progress made during the previous year and check the plans of the various other teams for the next year.

In the first half of the 10-year plan, various methods will be tested and final selections will be made. On the basis of

the selections, more detailed studies will be carried out in the latter half.

For the first two years, researchers will be recruited every year, but from the third year the research team will gradually be composed to more permanent members.

The 7-year plan for special research on energy will promote basic research on alternate sources of energy other than nuclear fusion. Over 100 researchers will be divided into eight groups to study (1) the social and economic problems connected with energy; (2) the effective use of energy, including liquefying coal and use of waste heat; (3) synthesizing light by using solar light; (4) natural energy, including use of solar, wind, wave and geothermal heat; (5) living matter energy; (6) thorium type fuel reactors; (7) the effective use of electric energy; and (8) effective use of agricultural energy.

COPYRIGHT: Asahi Evening News, 1979

CSO: 4120

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

SCIENCE AND TECHNOLOGY

COAL-BURNING SHIPS PLANNED BY HITACHI

Tokyo MAINICHI DAILY NEWS in English 3 Aug 79 p 5

[Text]

The Hitachi Shipbuilding & Engineering Co. plans to develop new vessels which use coal as their power source, in an effort to step up utilization of coal, the company's president, Masao Kinoshita, has revealed.

As an initial step, he said, his firm has started negotiations with a foreign research institute, which he declined to identify, on the introduction of its powered-coal combustion technology.

Attention in the nation's shipbuilding industry in regard to energy conservation has so

far been centered on the improvement of diesel and heavy-oil burning engines, as well as improvement in hull design.

Coal-burning engines, which have been neglected for the past 50 years, are attracting attention; however, with the emergence of \$20 per barrel oil.

Coal-powered ships were in their glory until the early 1920s, including the nation's warships mobilized in the Sino-Japanese War of 1894-5 and the Russo-Japanese War of 1904-5, until they were replaced with heavy-oil powered vessels.

COPYRIGHT: Mainichi Daily News, 1979

CSO: 4120

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

SCIENCE AND TECHNOLOGY

'AUTOMATIC MEASURING SYSTEM' FOR PARTS DEVELOPED

Tokyo NIKKAN KOGYO SHIMBUN in Japanese 31 May 79 p 5

[Text] Striving for "unmanning" of production plants, research on a production system with a computer as its nucleus has been progressing vigorously, and the Sada Laboratory at the Tokyo University Faculty of Engineering (Prof Toshio Sada) has developed, as one element this research, an "automatic measuring system" for machinery parts using a numerical control (NC) three-dimensional measuring machine. It uses drawing data (a geometric model) which shows the object being measured as a solid shape, and with computer interaction has been automated from preparation of the NC tape used for controlling the measuring machine to the processing of measurement data. Especially since preparing the NC tape to date has been a complex time-consuming job, success in automation with development of this system will bear watching. At the laboratory, hopes are for enabling measurement of complex shapes such as metal molds and establishing good prospects for practical use of this system within this fiscal year.

Metal Molds and Such Within the Fiscal Year

When the flow of machinery production is looked at, it can be classified roughly into the three stages of product design, process design and production operations. First of all, design drawings are prepared incorporating the technical specification and functional design. Next, the procedures for parts manufacture and product assembly are decided so as to produce the product as efficiently and economically as possible. Then, the manufacturing machinery necessary for the above is selected, the manufacturing conditions and tools necessary for each operation are decided, and when these process designs are finished, at last, the parts manufacture and product assembly are actually carried out and after testing the finished product emerges.

At present, automation is progressing at each stage, but there are still many areas where operations which link the stages are left to people and this is the big bottleneck in "unmanning." As a solution for this, it is

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

indispensable that information and the like at the design stage necessary for process design and production operation be given in advance to the computer which will be the brain of the production system, and that the computer be allowed to select the manufacturing machinery and tools, or, that the computer be allowed to perform an automated implementation of control instructions.

What is being researched from these concepts is a "comprehensive design production system." At present, research is going on at West German's Aachen Engineering School, but it has been dealt with at Sada Research Laboratory starting several years ago.

Because machinery part precision has become increasingly strict, the demand is increasing for three-dimensional measuring machines which demonstrate the ability to measure solid shapes. However, measuring work has been troublesome in that it was time-consuming, because a person must move the measuring probe to the measurement point for a manually operated three-dimensional measuring machine, which is mainly in use, and also, for the NC three-dimensional measuring machine, a person prepares the NC tape while considering the object to be measured or by using the "teaching-playback formula."

The automatic measuring system recently developed by the laboratory consists of a large-scale computer for data processing, a microcomputer which controls the NC three-dimensional measuring machine manufactured for trial use by the laboratory, and a display. Also, a "geo-map," a solid shapes processing system, developed by Professor Mamoru Hozumi and Assistant Professor Fumihiko Kimura of Tokyo University, is being used as the geometric model processor.

As for the procedures from preparing the NC tape to the processing of measurement data, first of all, the solid shape of the object being measured, entered into the large-scale computer, is pictured on the display, and, while that is being looked at, the measurement items and measurement points are indicated. (For the present, the measurement items are the distances between surfaces, the center coordinate and diameter of the holes, which are from the orthogonal coordinates, and the distances between the cores of holes.) In the case of measuring the distances between surfaces, the surfaces to be measured are specified at two edges with the use of a cursor, and then the measurement points of the surfaces are specified. In the case of measuring holes, specifications of the hole and indication of the depths measured are given. (As for the axis of the whole, only that perpendicular to the plane of the opening can be handled.)

When the measured items and the measurement points are indicated, the computer calculates the coordinates of the spaces which the measurement points measure, and the measurement route is decided. In the case of measuring a plane, a two-step collision check is performed concerning the specified measurement route, and a check is made whether a modification of the measurement route is necessary, or, whether a measurement is impossible even with a modification. In the case of a hole, a check is merely made whether the radius of the opening is larger than the measurement probe.

FOR OFFICIAL USE ONLY

In this way, the NC tape, the control instructions for the measuring machine which guide the movement route of the measuring probe, is created. Next, with the measuring machine actually controlled by this NC tape, the measurement data are collected, and when the computer processes them, the measurement results are obtained.

The prototype NC three-dimensional measuring instrument is a manually operated three-dimensional measuring machine made by Sanho, Ltd modified for micro-computer control and with attachment of a pulse motor to each shaft driven part. The touch sensor used as the measuring probe is a simple thing in which microswitches that move in two micron strokes are attached in five directions.

Due to the pulse that comes from the microcomputer, these touch sensors move 0.1 millimeter per pulse on each shaft. When the touch sensor moves and touches the object being measured, the coordinate values for each shaft are instantaneously taken into the microcomputer from the encoders attached to each shaft, apart from the pulse motor. Therefore, it is possible for the measurement to be more precise than the movement amount of one pulse.

Together with trying to be able to measure oblique openings and curved surfaces of metal molds and such in the future, the laboratory is carrying out research aimed at striving for a speed-up of measuring--from a present slow 15 millimeters per second to 50 millimeters per second--and is trying to aim at practical usage.

COPYRIGHT: Nikkan Kogyo Shimbunsha 1979

9400
CSO: 4105

FOR OFFICIAL USE ONLY

SCIENCE AND TECHNOLOGY

HITACHI MOVING TOWARD FULLY AUTOMATED LSI PRODUCTION

Tokyo NIKKAN KOGYO SHIMBUN in Japanese 31 May 79 p 14

[Text] Hitachi Ltd (President Hirokichi Yoshiyama) has stated the intent to automate the preprocessing work in IC and LSI production at the Musashi plant, which is Hitachi's main semiconductor plant. At that plant, an automated line for post-processing work centered on bonding of IC chips has recently been completed, and test operation is starting. If an integrated automated line including preprocessing and post-processing is completed, it will be the first automated IC plant in the world.

Aiming at World's First Complete Automation

The plan is for automation of IC preprocessing that the plant will start on to be effected for diffusion furnace, pattern formation and photo-processing, metal vapor deposition and such work which heretofore was left to manual operations. Semiconductor devices, including the IC and LSI, have fallen into short supply worldwide; and, in the situation where Hitachi, Nippon Electric, Fujitsu, and other domestic firms allocated more than half of their JFY 1979 equipment investments to augmenting semiconductor production capacity, it is said that formation of automated lines at IC plants will become the deciding factor in improving product performance and quality control.

The monthly LSI production capability at the Musashi plant is about 750,000 pieces. Starting several years ago, this plant embarked on establishing an automated line for post-processing of semiconductors such as IC and LSI and automation was carried out in pelletizing, bonding, checking and packaging. The post-processing automated line has been recently completed and now is entering test operation. It is said that manpower involved in these tasks has declined to one-fifth to one-tenth that of the past, and a quality control system for improvement in the yield has been established.

At the plant, it has been decided that automation of preprocessing, which had not been touched by anyone in the world, will be carried out in 1 or 2

FOR OFFICIAL USE ONLY

years. Work at the plant includes fabrication of silicon wafers, cutting into discs, polishing, pattern formation, photo-process, metal vapor deposition, dicing and so forth. The idea is that, as the first step in automation, work at the diffusion furnace, which was dependent heretofore on manual operations because of high temperatures and the complex processing, will be automated.

COPYRIGHT: Nikkan Kogyo Shimbunsha 1979

9400

CSO: 4105

FOR OFFICIAL USE ONLY

SCIENCE AND TECHNOLOGY

IMPORTANT TECHNOLOGY SUBSIDY THEMES, RECIPIENTS ANNOUNCED

3.1 Billion Yen Allotted

Tokyo NIKKAN KOGYO SHIMBUN in Japanese 5 Jun 79 p 1

[Text] On 4 June, the Agency of Industrial Science and Technology (Seiichi Ishizaka, director) announced its decisions on granting subsidies for important technology research and development costs in JFY 1979. According to the announcement, the total number of applications was 184, but only 88 were approved, with approved subsidies totaling 3,111,720,000 yen.

The purpose of the important technology research and development subsidy system is to provide subsidies and foster research by private enterprise in key technologies, such as housing systems, unexplored and innovative technology for the future, technological measures for environmental protection, safety, and energy conservation technology. The number of applications for grants this year was 184 (6.6 billion yen). This is a 42 percent increase from last year's 130 applications. A major factor was the inclusion of new materials development, which comes under the new, unexplored and innovative technology. There was an increase in applications pertaining to materials development and biochemical research utilizing microbes and oxygen [as published]. However, despite the increase in the number of applications, the budget for this year has decreased somewhat from last year. Therefore, the percentage of grantees has decreased drastically. That is, the number accepted has remained at 88 this year, compared to 87 for last year.

Recipients, Themes Listed

Tokyo NIKKAN KOGYO SHIMBUN in Japanese 5 Jun 79 p 5

[Original paragraphs broken up for ease in reading]

[Text] The Agency of Industrial Science and Technology announced 88 grants under the JFY 1979 key technology research and development subsidy plan. Fifty-nine grants were concerned with core technology, 23 with environmental protection and safety, and 6 with energy-saving technology. The breakdown according to research themes and recipients is as follows.

FOR OFFICIAL USE ONLY

59 Items Related to Core Technology

I. Core and Key Technology

A. Machinery

1. Mixed phase solid/liquid fluids transport apparatus--Niigata Engineering Works
2. Comprehensive rating system for large ball bearings--NTN Toyo Bearings Company and three others
3. Compound material tubes by centrifugal forming method (new)--Towa Concrete Industries
4. Tissue culture cell separation apparatus--Sanki Engineering Company
5. Injection compressor for secondary recovery of crude oil--Mitsui Ship-building and Engineering Company

B. Electrical

1. High-speed Kanji wire dot printer (new)--Tanimura Shinko Seisakusho
2. Ga As field effect transistor integrated circuit--Fujitsu Limited
3. New compound alloy for electronic parts--Toshiba
4. Smart sensors (new)--Adachi Electric Company
5. Breaker system for DC power transmission system--Toshiba
6. Laser gyro (new)--Japan Aviation Electronics Industry Limited
7. High speed master art work drawing system (new)--Nippon Electric Company Limited
8. Computed tomography using ultrasonic wave--Aroka
9. High performance file memory--Mitsubishi Electric Corporation
10. Improved safety and reliability of clinical diagnostic integrated system instruments and machines--Technology Research Association for Safe Medical Equipment and Machines (Iryo Kiki Anzen Gijutsu Kenkyu Kumiai)
11. High performance automatic proofreading system--Research Association for Automated Instrumentation Technology (Jido Keiki Gijutsu Kenkyu Kumiai)
12. High precision liquid crystal display--Hitachi Limited
13. High precision and high speed D/Z, A/D converter (new)--Takeda Riken Industry Company
14. High speed and high efficiency optical fiber recording tube (new)--Japan Radio Company Limited
15. Light source for spectroanalysis (new)--Hamamatsu Television Company
16. Coating for high output laser (new)--Showa Koki Manufacturing Company
17. High speed and high precision A/D converter for imagery processing (new)--Matsushita Electric Industrial Company Isotropizing for radiation pattern of high output semiconductor laser--Mitsubishi Electric Corporation, Fuji Electric Company

FOR OFFICIAL USE ONLY

18. Planer high density color (tricolor) LED display device (new)--Sanyo Electric Company
 19. 500 KV series condenser (new)--Nisshin Denki Company
 20. Protein quantitizer using immunoelectrophoresis (new)--Toa Medical Electronics Company
 21. Multi-chip high density packaging technology (new)--Sharp Corporation
 22. Making an electro-microphone using the electron beam and corona discharge methods (new)--Hoshi Denki Seizo
 23. Automatic clinical test apparatus using a high speed liquid chromatograph (new)--Toyo Soda Manufacturing Company
- C. Chemical
1. New polyimide synthesis from new tetrabasic oxide anhydride (new)--Dai Nippon Ink and Chemicals, Inc
 2. Mass production technology for low-loss broad-band optical fiber--Nippon Sheet Glass Company
 3. New high-strength high-modulus fiber (new)--Teijin Limited
 4. High-strength high-elasticity continuous alumina fiber using poly-amino [?dilute acid] as starting material (new)--Sumitomo Chemical Company
- D. Metals
1. New refining method for aluminum metal using aluminum chloride electrolysis--Nippon Light Metal Company, Mitsubishi Light Metal Company, Showa Light Metal Company, Mitsui Aluminum Industry Company, Sumitomo Aluminum Refining Company, Sumitomo Light Aluminum Industry Company
 2. Manufacture of atomized iron powder for large sinterings and sintered forged products (new)--Sumitomo Metal Industries
- II. Housing System Technology
1. Hard core for detached housing (new)--Misawa Home General Research Institute
 2. Gas heat pump (new)--Tokyo Gas Company
 3. Hybrid air conditioner--Matsushita Electric Industrial Company, Daikin Kogyo Company
 4. New method for cooling and heating systems--Sharp Corporation
- III. Unexplored and Innovative Technology
1. Integrated technology for semiconductor laser--Hitachi Limited
 2. Technology for manufacture of optic devices using a multi-function molecular beam epitaxial growth apparatus (new)--Nippon Jutsu [as published-Japan Technology?]

FOR OFFICIAL USE ONLY

3. Optoactive connector for vacuum technical data bus and connective parts--Oki Electric Industry Company
 4. High dimension instrumentation method applying visual functions of living bodies--Nippon Electric Company
 5. Various high performance sensors using ultramicro particles--Matsushita Electric Industrial Company
 6. Gate insulator field effect transistor for monitoring microscopic sensor bodies (new)--Kuraray Company Limited
 7. New graphitization technology using electric discharge sintering--Inoue Japax Research Institute
 8. New carbon material using crystalloid pitch as raw material--Mitsui Coke
 9. Fixation of physiologically active materials with near infrared rays (new)--Mitsubishi Chemical Industries
 10. Manufacture of interferon by tissue culture--Toray Industries
 11. Manufacture of medicinal enzymes by tissue culture systems--Asahi Chemical Industry Company
 12. Development and fixation of heat resistant enzymes--Kyowa Hakko Kogyo Company
 13. Separation and extraction technology for components of living bodies (new)--Medix International Corporation
 14. Study of enzyme battery system--Matsushita Electric Industrial Company
 15. New cancer diagnostic system based on enzyme methods (new)--Tokuyama Soda Company
 16. Medical supplies from bi-parent structure fluoroc resin(new)--Asahi Glass Company
 17. Stronger particle dispersion alloy materials (new)--Mitsubishi Metal Corporation central research institute
 18. Method of ultra-high voltage generation and new materials using it (new)--Inoue Japax Research Institute
 19. High weather-resistant and high strength compound membrane materials (new)--Toyobo Company Limited
- 23 Items Related to Technology on Environmental Protection and Safety
(General technology for environmental protection and safety)
1. Total recycling of recovered vinyl chloride--Nippon Carbon Company
 2. Diminution of water discharge in treatment of sewage and improvement of water quality (new)--Asahi Glass Company
 3. Piston ring and cylinder liner for pollution control and energy-saving diesel engine (new)--Nippon Piston Ring Company

FOR OFFICIAL USE ONLY

4. Improvement of resin formed products (new)--Shinetsu Chemical Industry Company
5. High output Klystron [as published] for treatment of industrial wastes (new)--Toshiba
6. Manufacture of mica flakes and high performance composites of high aspect ratios (new)--Lepco
7. Automobile abrasives using steel wool, etc (new)--Akebono Brake Company
8. Plasma surface machining equipment (new)--Citizen Watch Company
9. Multifuel high-efficiency heat engine--Aisin Seiki Company Limited
10. Simultaneous treatment of high-concentration ammonia and COD elements using wet contact decomposition process (new)--Osaka Gas Company
11. Dyeing method using compound materials (new)--Nosaka Dyeing and Weaving Company
12. Optimum engine control system based on energy saving (new)--General Automobile Safety and Anti-pollution Technology Research Association (Sogo Jidosha Anzen Kogai Gijutsu Kenkyu Kumiai)
13. Heat pliable materials which can be extrusion formed made using chips from old tires and pulverized at low heat as raw materials (new)--Kansai Environmental Development Corporation, Eiwa Chemical Industry Company
14. Development of ion selective permeable compound membranes and environmental protection technology (new)--Teijin Limited
15. Enrichment of oxygen through gas separation membranes (new)--Teijin Limited and five others
16. UHF vibrating pile driver machine to eradicate noise pollution and boost efficiency--Tadano Iron Works Company
17. House construction materials by recycling industrial wastes (new)--Sankyu Company Limited
18. High voltage vacuum interrupter--Meidensha Electric Manufacturing Company
19. Abnormal vibration diagnosis system for large rotating equipment--Hitachi Limited
20. Building materials using fibrous plaster (new)--Nippon Hardboard Company Limited
21. Accelerated engineering method using ultra-high pressure water (new)--Kumagai Gumi Company Limited
22. Safe automatic system for finishing large castings (new)--Kobe Steel Limited
23. Control system and storage tank for solidified crude and heavy oil--Nippon Steel Corporation, Energy Engineering

FOR OFFICIAL USE ONLY

Six Items Related to Energy Saving Technology

1. Instant restart high-efficiency small electric discharge lamp (new)--Mitsubishi Electric Corporation
2. Energy-saving transparent insulating film--Teijin Limited
3. Standard practical electric automobile--Standard Practical Electric Automobile Technological Research Association (hyojun Jitsuyo Denki Jidosha Gijutsu Kenkyu Kumiai)
4. High performance plate-type evaporator and condenser--Hisaka Works Limited
5. Ceramic diesel engine--Kyoto Ceramic Company
6. Hot water electric power generating system--Nippon Steel Corporation

COPYRIGHT: Nikkan Kogyo Shimbunsha 1979

5884

CSO: 4105

FOR OFFICIAL USE ONLY

SCIENCE AND TECHNOLOGY

BRIEFS

MANGANESE NODULE PROGRAM--The Ministry of International Trade and Industry and its component the Resources and Energy Agency have decided to establish a 20-billion-yen 7-year "large project" deep sea manganese nodule R&D program under the auspices of the Agency of Industrial Science and Technology. The goal is commercial mining of manganese nodules using Japanese-developed technology by 1990. Intraminiistry coordination is in the final stage, and air lift and pump suction systems will be the focus of the program. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 2 Aug 79 p 1]

COAL LIQUEFACTION CATALYSTS--Professor Furukawa of the Osaka University Faculty of Engineering is working on use of $ZnCl_2$, $ZnCl_2$ plus $CuCl$, and ZnI plus CuI catalysts at coal:catalyst ratios of 100:1, 20:1, and 10:1 by weight (excluding weight of the methanol catalyst carrier) to obtain yields of over 50 percent of liquids convertible into gasoline. Reaction conditions are temperature 400 degrees C, duration 3 hours, initial hydrogen pressure 100 kg per cubic [as published] centimeter. Tests are being run on Yubari coal and on SRC paste. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 31 Jul 79 p 6]

SEMISUBMERSIBLE WORK SHIP--The Japan Marine Science and Technology Center is developing an undersea elevator (SDC) and shipboard compression-decompression equipment (DDC) for aquanauts to work at 300-meter depths. This equipment is to be completed by the end of JFY 1980. The experimental vessel to carry this gear will be a multipurpose marine experimental vessel, a twin-hull semisubmersible work vessel 53 meters in length and 28 meters in width, able to work in rough seas with waves 4 meters in height. Basic designs for this 2,500 gross ton vessel will cost 90 million yen in JFY 1980 and total construction costs are estimated at 5.69 billion yen. The entire program for design and construction is to run from JFY 1980 through JFY 1982 (3 years). Starting in JFY 1983, the vessel will be used for experiments with the above equipment for 2 months of the year and for a variety of other tasks during the rest of the year. [Tokyo NIKKEI SANGYO SHIMBUN in Japanese 1 Aug 79 p 17]

END

CSO: 4105

FOR OFFICIAL USE ONLY